REMARKS

Claims 1, 3, 5, 10, 13, and 22 have been amended (i.e. by substitution). Claims 1-23 are therefore pending.

It should be noted that the Examiner has deemed original claims 3 and 13-23 as allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. In response, Applicant has amended claims 3 and 13 to independent form including all the limitations of the base claim and any intervening claims. Dependent claims 14-23 ultimately depend from claim 13 and are therefore deemed allowable due to their dependency from an allowable base claim.

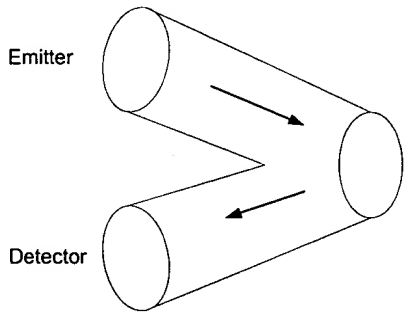
Applicant wishes to thank Examiner Kim for the telephone conversation which occurred on April 15, 2002.

Applicant also wishes to remind the Examiner that the Detwiler reference (U.S. Patent No. 6,045,046) relied upon in the rejection was not listed on the form PTO-892 mailed along with the July 18, 2001 Office Action. Additionally, the Applicant also respectfully requests the Examiner to correct the form PTO-1449 submitted to the PTO on April 29, 1999. The form PTO-1449 inadvertently incorrectly refers to U.S. Patent No. 5,411,141 issued to **Keonik** et al and should instead refer to U.S. Patent No. 5,410,141 issued to Koenck et al. The correct information is mentioned on the IDS submitted along with the form PTO-1449. Applicant appreciates the Examiner's assistance in the above matter.

Amended claim 1 is directed to a display scanner for reading a barcode comprising: an optical panel including a plurality of stacked **parallel** optical waveguides defining an inlet face at one end and a screen at an opposite end, and each of the waveguides has a core laminated between cladding; a projector optically aligned with the inlet face for projecting a scan beam of light into the panel for transmission from the screen as a scan line to scan the

barcode; a light sensor disposed in optical communication with the inlet face for detecting a return beam reflected from the barcode into the screen; and a decoder operatively joined with the sensor for decoding the return beam detected by the sensor to read the barcode.

In the Office Action mailed July 18, 2001, the Examiner rejected previous claim 1 under 35 U.S.C. § 103(a) over Eastman et al (U.S. Patent No. 5,786,585) in view of Agabra et al (U.S. Patent No. 6,126,075). However, none of the features underlined in the paragraph above are shown or suggested by Eastman et al or Agabra et al. In view of the absence of such teachings, it is respectfully submitted that the invention of amended claim 1 is neither shown nor suggested by the cited prior art. For example, the Examiner relied on Agabra et al to teach that it would have been obvious to "employ well known method of wave-guide to the teachings of Eastman in order to efficiently transmit light from the source to remote locations and return light from remote locations to the sensors." The Examiner further states that "wave-guide helps preventing light from refracting and thus light in low intensity will still register". However, Applicant respectfully submits the limitations of claim 1, as now amended, are not disclosed nor taught by Agabra et al. In particular, amended claim 1 now requires the waveguides to be stacked and parallel. In contrast, Agabra et al waveguides are V-shaped (as illustrated in the below diagram).

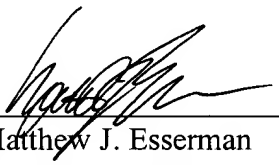


Agabra et al's V-shaped waveguide configuration are clearly not stacked and are not parallel as per amended claim 1. Agabra et al's V-shaped waveguide configuration leads to the use of separate waveguides for incoming and outgoing light whereas the waveguides of the present

invention utilize the same waveguide for both the incoming and outgoing light. Therefore Agabra et al's waveguide configuration is functionally significantly different to the waveguide configuration of the present invention as now claimed in amended claim 1. Since Agabra et al and Eastman et al lack a teaching of these claimed features, Applicant respectfully submits the cited prior art, either alone or in combination, fails to teach the present invention as now claimed. As such, withdrawal of this rejection is respectfully requested.

In view of the foregoing amendments and remarks, it is respectfully submitted that pending independent claims 1, 3, and 13 are in condition for allowance. In addition, it is respectfully submitted that the remaining claims are allowable, because such claims depend from an allowable base claim. Reconsideration and further examination of the present application is therefore requested, and a notice of allowance is earnestly solicited.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Please substitute claims 1, 3, 5, 10, 13, and 22 for the corresponding pending claim(s) with the same number(s) as follows:

1. (Amended) A display scanner for reading a barcode comprising:

an optical panel including a plurality of stacked parallel optical waveguides defining an inlet face at one end and a screen at an opposite end, and each of said waveguides has a core laminated between cladding;

a projector optically aligned with said inlet face for projecting a scan beam of light into said panel for transmission from said screen as a scan line to scan said barcode;

a light sensor disposed in optical communication with said inlet face for detecting a return beam reflected from said barcode into said screen; and

a decoder operatively joined with said sensor for decoding said return beam detected by said sensor to read said barcode.

3. (Amended) A display scanner for reading a barcode comprising:

an optical panel including a plurality of stacked optical waveguides defining an inlet face at one end and a screen at an opposite end, and each of said waveguides has a core laminated between cladding;

a projector optically aligned with said inlet face for projecting a scan beam of light into said panel for transmission from said screen as a scan line to scan said barcode, wherein said projector further comprises a pattern generator for defining a plurality of said scan lines with different orientations in a collective pattern at said screen for reading different orientations of

said barcode, and wherein said projector comprises a video display projector configured to display said pattern as a video image thereof;

a light sensor disposed in optical communication with said inlet face for detecting a return beam reflected from said barcode into said screen; and

a decoder operatively joined with said sensor for decoding said return beam detected by said sensor to read said barcode.

5. (Amended) A scanner according to claim 2 further comprising a light coupler disposed [atop] on said screen for transmitting said scan lines outwardly therefrom.

10. (Amended) A scanner according to claim [2] 1 wherein said sensor comprises a photodiode adjoining said inlet face.

13. (Amended) A display scanner for reading a barcode comprising:

an optical panel including a plurality of stacked optical waveguides defining an inlet face at one end and a screen at an opposite end, and each of said waveguides has a core laminated between cladding;

a projector optically aligned with said inlet face for projecting a scan beam of light into said panel for transmission from said screen as a scan line to scan said barcode, wherein said projector further comprises a pattern generator for defining a plurality of said scan lines with different orientations in a collective pattern at said screen for reading different orientations of said barcode, and wherein said projector is configured for projecting into said panel both said scan beam and a video beam, with said scan beam forming said scan line pattern at said screen, and said video beam forming a visual display image;

a light sensor disposed in optical communication with said inlet face for detecting a return beam reflected from said barcode into said screen; and

a decoder operatively joined with said sensor for decoding said return beam detected by said sensor to read said barcode.

22. (Amended) A scanner according to claim [21] 17 wherein said scan beam projector is configured for transmitting an infrared scan beam, and said video projector is configured for transmitting a visible video beam.